

FRM TOOLS & METHODS

EASA FRM WORKSHOP

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DHL Air (Austria) GmbH – Excellence. Simply delivered.



Introducing DHL Air (Austria) GmbH



Background



Our Customer



Nature of our operation



Our FRM team

AWAKE

Sleep Well. Live Well.



DHA do not
have an FRMS
approval

Although
equivalent tools
and methods are
used to manage
fatigue risk

Fatigue Critical Operations



**Disruptive
schedules**



**Multiple
sector duties**



**Commuting
population**



Roster changes



**Minimum rest
locations**



**Higher risk
sectors**



Fatigue hazard

FRM Procedures and Processes

Data Collection



Pilot Alertness Form (PAF) at TOD

The screenshot shows a mobile application interface for a Pilot Alertness Form (PAF) report. At the top, it displays flight information: 11:48 UTC, QV3317 - BCS3317, OELNL - B757-DHA, ENGM, EDDP, 20 JAN 09:00, and 10:55. The title is "PAF Report" dated "23 Jan 2024, 11:45". There are "DELETE" and "SUBMIT" buttons. The form fields include: Rank*, Sector Info* (Current Sector* and Total sector nu...), Additional Info* (Duty Day* and Total duty days*), Roster*, and Fleet*. The KSS Alertness Score* is a radio button selection with options: 1 = Extremely alert, 2 = Very alert, 3 = Alert, 4 = Rather alert, 5 = Neither alert nor sleepy, 6 = Some signs of sleepiness, 7 = Sleepy, but no effort to keep awake, 8 = Sleepy, some effort to keep awake, and 9 = Very sleepy, great effort to keep awake, fighting sleep. There is a "Voluntary Crew Ident" field. At the bottom, there are instructions: "To submit the completed form, remember to open Aviobook..." and "If a KSS 8 or 9 has been assessed, the reporter is kindly remi...".

FRM Procedures and Processes

Data Collection



Pilot Alertness Form (PAF) at TOD



Crew Fatigue Reports



Proactive



Reactive

Reactive Crew Fatigue Reports

- Stood down due to Fatigue
- Fatigue contributing factor to an occurrence (i.e. ASR)
- Experienced fatigue whilst operating
- Assessed themselves as KSS 8 or 9 during PAF at TOD

FRM Procedures and Processes



PAF at TOD

Data Analysis

PAF at TOD

- Independent analysis performed by our Contracted Sleep Science organisation
- Monthly Fatigue Working Group to review analysis report
- Higher fatigue risk sectors identified

FRM Procedures and Processes

Data Analysis

→ PAF at TOD

→ Crew Fatigue Reports

Proactive Crew Fatigue Reports

Predefined Root Causes

- Disturbed Rest
- Self-Management of Rest
- Operational Disruption
- Rostering (planned)
- Rostering (changes)
- Management of Known Fatiguing routes
- Other
- Proactive predictive report

Reactive Crew Fatigue Reports

Identified roster independently analysed including biomathematical modelling

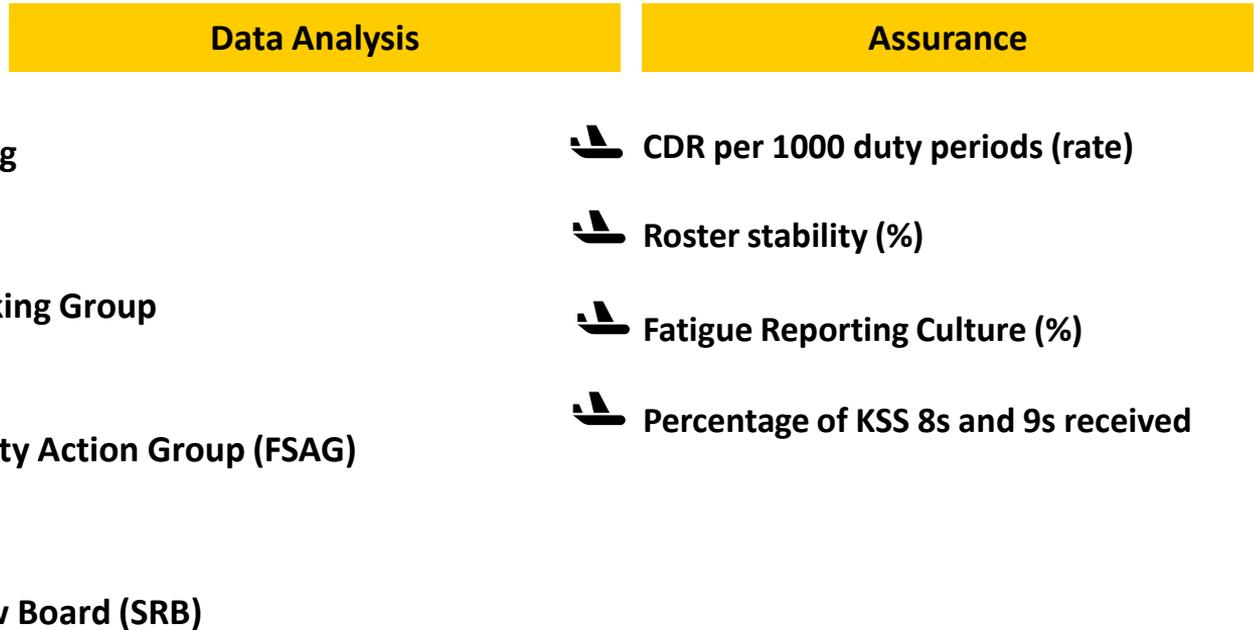
Can provide background / comment

Independent analysis of CFR

Proposed root cause assigned

All reports discussed and root cause agreed for each in monthly Fatigue Working Group

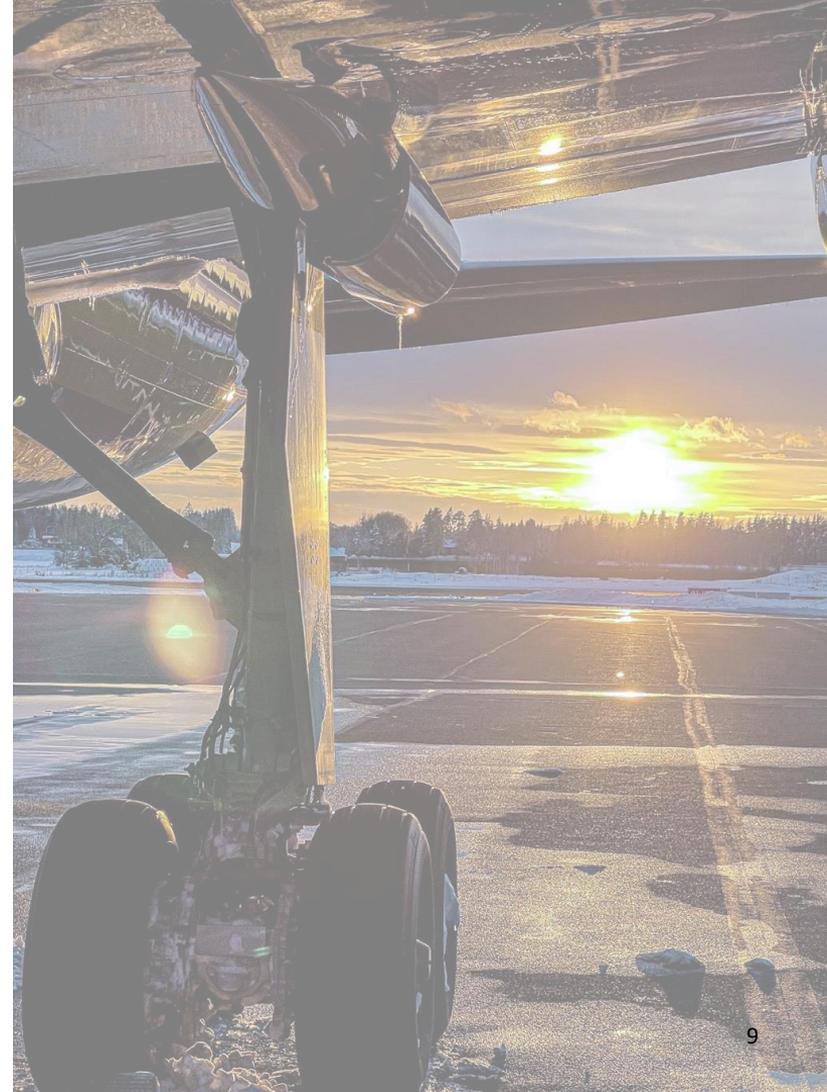
FRM Procedures and Processes



FRM Procedures and Processes

Promotion, Training & Support

-  **Initial and Recurrent Training by Sleep scientists**
-  **Confidential support by Sleep scientists**
-  **Safety nights by Fatigue Pilot**
-  **'Waypoint' Safety Newsletter**



FRM Procedures and Processes

Supporting Disruptive Schedules



Home base – dedicated sleep facilities



DHL Hubs – dedicated sleep facilities



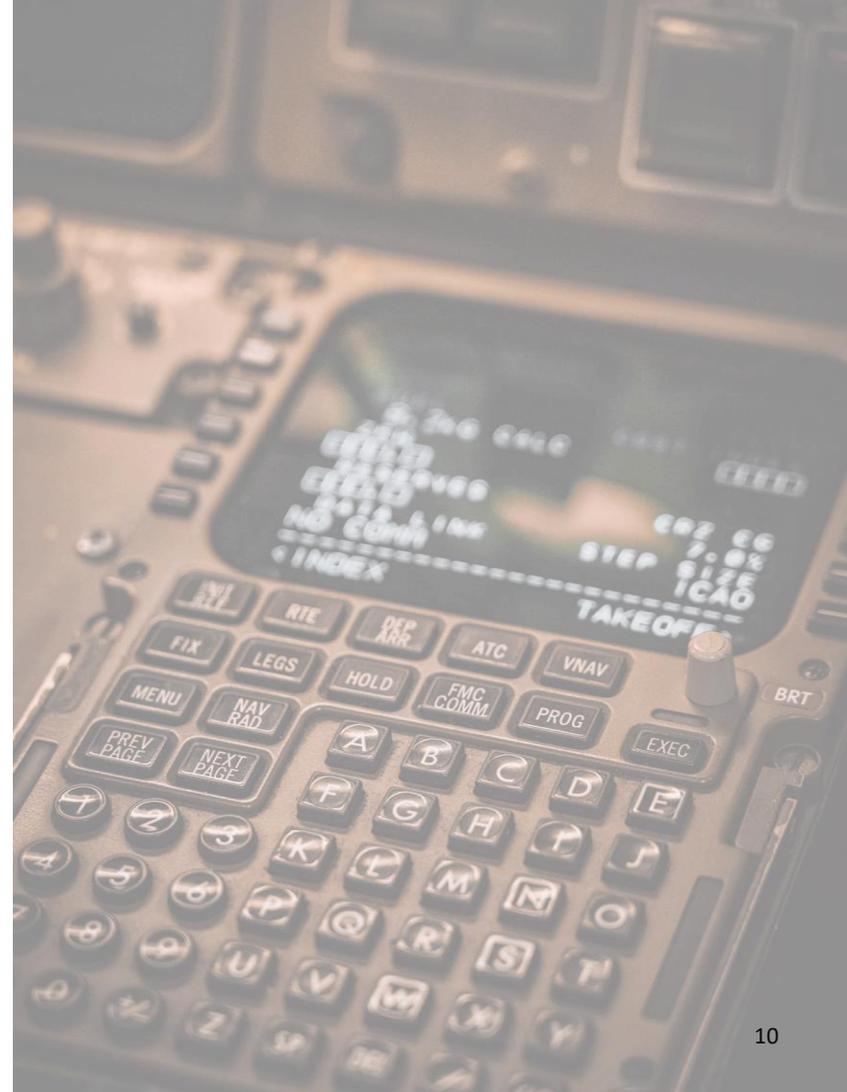
Personal Commuting Declarations



Rest day prior to N1



Crew scheduling guidelines



FRM Procedures and Processes

Future Developments



Actiwatch studies – providing individual feedback



AIMS Fatigue Module and biomathematical model





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